

Having described the invention, the following is claimed:

1. A device for providing access to a surgical location within a patient, said device comprising:

an elongate body having a proximal end and a distal end, said elongate body defining a passage for accessing the surgical location with surgical instruments, said elongate body having a contracted configuration for insertion into the patient and an expanded configuration for providing access to the surgical location, wherein the cross-sectional area of said passage at a first location of the expanded configuration is greater than the cross-sectional area of said passage at a second location of the expanded configuration;

a slot defined in said elongate body;

a guide member disposed in said slot, wherein said guide member is disposed in a first position relative said slot when said elongate body is in the contracted configuration, and wherein said guide member is disposed in a second position relative said slot when said elongate body is in the expanded configuration; and

a stop to retain said guide member in the second position relative said slot when said elongate body is in the expanded configuration.

2. The device of Claim 1, wherein the expanded configuration of the elongate body when inserted within the patient is conical.

3. The device of Claim 1, wherein the first location is at the distal end of the elongate body.

4. The device of Claim 1, wherein said elongate body comprises a first tubular portion extending distally from the proximal end of said elongate body.

5. The device of Claim 4, wherein said elongate body comprises a second tubular portion coupled with said first tubular portion and extending distally therefrom.

6. The device of Claim 5, wherein said second tubular portion is expandable.

7. The device of Claim 1, wherein said elongate body is sized to provide access to a spinal location.

8. The device of Claim 7, wherein the width of said passage at the first location is greater than about 14 mm.

9. The device of Claim 7, wherein the width of said passage at the first location is between about 14 mm and about 36 mm.

10. The device of Claim 1, wherein said guide member is movable from a first end of said slot toward a second end of said slot to enable a cross-sectional area of said passage to increase.

11. The device of Claim 1, wherein said stop is located between a first end and a second end of said slot.

12. The device of Claim 1, wherein said stop is engageable with said guide member to resist movement of said guide member relative said slot.

13. The device of Claim 1, wherein said elongated body comprises a plurality of stops between a first end and a second end of said slot to retain said guide member in any one of a plurality of positions relative said slot.

14. The device of Claim 13, wherein said plurality of stops are engageable with said guide member to resist movement of said guide member from any one of said plurality of positions relative said slot.

15. The device of Claim 1, wherein said slot comprises a notch defining said stop, said notch extending in a direction transverse to a direction in which said slot extends.

16. The device of Claim 1, wherein said slot comprises a plurality of notches between a first end and a second end of said slot defining a plurality of stops to retain said guide member in any one of a plurality of positions relative said slot.

17. The device of Claim 16, wherein said plurality of stops are engageable with said guide member to resist movement of said guide member from any one of said plurality of positions relative said slot.

18. The device of Claim 5, wherein said first tubular portion has a thickness larger than a thickness of said second tubular portion.

19. The device of Claim 5, wherein said second tubular portion has first and second ends connected by a central portion, said first end being attached to a distal end of said first tubular portion, said slot extending circumferentially from said central portion toward said second end of said second tubular portion.

20. The device of Claim 1, wherein said elongate body comprises an arcuate segment rolled into a tubular shape.

21. A device for providing access to a spinal location within a patient, said device comprising:

an elongate body having a proximal end and a distal end and defining a length between the proximal and distal ends such that the proximal end can be positioned outside the patient and the distal end can be positioned inside the patient adjacent the spinal location, said elongate body having an outer surface and an inner surface, said inner surface defining a passage extending through the elongate body and through which surgical instruments can be inserted to the spinal location, said elongate body capable of having a configuration when inserted within the patient wherein the cross-sectional area of said passage at a first location is greater than the cross-sectional area of said passage at a second location, wherein the first location is distal to the second location;

wherein said elongate body has a stop for maintaining the configuration when inserted within the patient.

22. The device of Claim 21, wherein the elongate body is capable of having a plurality of configurations when inserted within the patient, wherein the cross-sectional area of said passage at the first location is greater than the cross-sectional area of said passage at the second location in the plurality of configurations.

23. The device of Claim 22, wherein the elongate body comprises a plurality of stops.

24. The device of Claim 21, wherein the configuration of the elongate body between the first location and the second location is conical when the elongate body is inserted within the patient.

25. The device of Claim 21, wherein the first location is at a distal end of the elongate body, and the second location is at a proximal end of the elongate body.

26. The device of Claim 21, wherein the elongate body is configured to be inserted through the skin of the patient and is sized to provide access to a spinal location.

27. The device of Claim 21, wherein the elongate body is movable from a first configuration to a second configuration when inserted within the patient, said second configuration providing the cross-sectional area of said passage at a first location greater than

the cross-sectional area of said passage at a second location, wherein the first location is distal to the second location.

28. The device of Claim 27, wherein the elongate body is expandable from the first configuration to the second configuration.

29. A device for providing access to a spinal location within a patient, said device comprising:

an elongate body having a proximal end and a distal end and defining a length between the proximal and distal ends such that the proximal end can be positioned outside the patient and the distal end can be positioned inside the patient adjacent the spinal location, said elongate body having an outer surface and an inner surface, said inner surface defining a passage extending through the elongate body and through which surgical instruments can be inserted to the spinal location, said elongate body being expandable from a contracted configuration to an expanded configuration, wherein the cross-sectional area of said passage at a first location is greater than the cross-sectional area of said passage at a second location in the expanded configuration, wherein the first location is distal to the second location;

wherein said elongate body is capable of locking in the expanded configuration when inserted within the patient.

30. The device of Claim 29, wherein the elongate body is capable of having a plurality of expanded configurations when inserted within the patient, wherein the cross-sectional area of said passage at the first location is greater than the cross-sectional area of said passage at the second location in the plurality of expanded configurations.

31. The device of Claim 30, wherein the elongate body is capable of locking in one or more of the plurality of expanded configurations.

32. The device of Claim 30, wherein the elongate body between the first location and the second location is generally conical in one or more of the plurality of expanded configurations.

33. The device of Claim 29, wherein the elongate body is configured to be inserted through the skin of the patient.

34. A device for providing access to a spinal location within a patient, said device comprising:

an elongate body having a proximal end and a distal end and defining a length between the proximal and distal ends such that the proximal end can be positioned outside the patient and the distal end can be positioned inside the patient adjacent the spinal location, said elongate body having an outer surface and an inner surface, said inner surface defining a passage extending through the elongate body and through which surgical instruments can be inserted to the spinal location, said elongate body capable of having a configuration when inserted within the patient wherein the cross-sectional area of said passage at a first location is greater than the cross-sectional area of said passage at a second location, wherein the first location is distal to the second location;

wherein said elongate body is capable of resisting a reduction in the cross-sectional area at the first location when inserted within the patient.

35. The device of Claim 34, wherein the elongate body is capable of having a plurality of configurations when inserted within the patient, wherein the cross-sectional area of said passage at the first location is greater than the cross-sectional area of said passage at the second location in the plurality of configurations.

36. The device of Claim 34, wherein the elongate body comprises one or more stops.

37. The device of Claim 34, wherein the elongate body comprises one or more notches.

38. The device of Claim 34, wherein the elongate body is configured to be inserted through the skin of the patient and is sized to provide access to a spinal location.

39. The device of Claim 34, wherein the elongate body is movable from a first configuration to a second configuration when inserted within the patient, said second configuration providing the cross-sectional area of said passage at a first location greater than the cross-sectional area of said passage at a second location, wherein the first location is distal to the second location.

40. The device of Claim 39, wherein the elongate body is expandable from the first configuration to the second configuration.

41. A device for providing access to a spinal location within a patient, said device comprising:

an elongate body having a proximal end and a distal end and defining a length between the proximal and distal ends such that the proximal end can be positioned outside the patient and the distal end can be positioned inside the patient adjacent the spinal location, said elongate body having an outer surface and an inner surface, said inner surface defining a passage extending through the elongate body and through which surgical instruments can be inserted to the spinal location, said elongate body capable of having a first expanded configuration when inserted within the patient wherein the cross-sectional area of said passage at a first location is greater than the cross-sectional area of said passage at a second location, wherein the first location is distal to the second location, said elongate body capable of having a second expanded configuration when inserted within the patient wherein the cross-sectional area of said passage at the first location is greater than the cross-sectional area of said passage at the second location, wherein the cross-sectional area of said passage at the first location in the first configuration is greater than the cross-sectional area of said passage at the first location in the second configuration;

wherein said elongate body is capable of maintaining either the first expanded configuration or the second expanded configuration when inserted within the patient.

42. The device of Claim 41, wherein the elongate body is capable of locking in one or more of the plurality of expanded configurations.

43. The device of Claim 41, wherein the elongate body comprises one or more stops.

44. The device of Claim 41, wherein the elongate body comprises one or more notches.

45. The device of Claim 41, wherein the elongate body is configured to be inserted through the skin of the patient.

46. The device of Claim 41, wherein the elongate body is movable from the second expanded configuration to the first expanded configuration when inserted within the patient.

47. A device for providing access to a spinal location within a patient, said device comprising:

an elongate body having a proximal end and a distal end and defining a length between the proximal and distal ends such that the proximal end can be positioned outside the patient and the distal end can be positioned inside the patient adjacent the spinal location, said elongate body defining a passage for accessing the spinal location with surgical instruments, said elongate body having a contracted configuration and an expanded configuration, wherein the cross-sectional area of said passage at a first location of the expanded configuration is greater than the cross-sectional area of said passage at a second location of the expanded configuration, wherein the first location is distal to the second location, said elongate body comprising a first member and a second member movable relative said first member, said first member comprising a notch to retain said second member in a position relative said first member when said elongate body is in the expanded configuration.

48. The device of Claim 47, wherein said elongate body is metal.

49. The device of Claim 47, wherein said first member comprises a plurality of notches.

50. The device of Claim 47, wherein said first member and said second member overlap at the distal end of the elongate body.

51. A device for retracting tissue to provide minimally invasive access to a surgical location at or near the spine of a patient, said device comprising:

an elongate body having a proximal end and a distal end and defining a length between the proximal and distal ends such that the proximal end can be positioned outside the patient and the distal end can be positioned inside the patient adjacent the surgical location, wherein the elongate body comprises rigid material extending around substantially the entire perimeter of the cross-sectional area between the proximal and distal ends;

a passage extending through the elongate body between the proximal and distal ends sized such that more than one surgical instrument can be positioned simultaneously within the passage along the entire length of the passage, the passage being defined by a smooth metal inner surface extending at least partially around the passage between the proximal and distal ends, wherein the elongate body is actuatable between a contracted configuration sized for insertion into the patient and

an expanded configuration wherein the cross-sectional area of said passage at the distal end is greater than the cross-sectional area of said passage at the proximal end; and

a stop;

wherein an outer surface of the elongate body at least partially overlaps the inner surface of the elongate body in the contracted configuration, and actuating the elongate body to the expanded configuration comprises reducing the overlap between the inner and outer surfaces along a pivot joint between adjacent portions of the elongate body, and wherein the stop maintains the elongate body in the expanded configuration after actuation to the expanded configuration.

52. The device of Claim 51, wherein the elongate body is capable of maintaining its contracted configuration.

53. The device of Claim 51, wherein the elongate body is configured to be manually expanded.

54. The device of Claim 53, wherein the passage is sized to receive an expander tool adapted to manually expand said elongate body.

55. The device of Claim 51, wherein the elongate body defines a length between the proximal and distal ends such that the proximal end can be positioned outside the patient.